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Patent Abstract

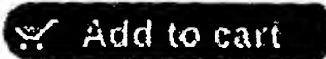
EPB 92-15 0307815 Fuels for spark ignition engines.


INVENTOR(S)- Martischius, Franz-Dieter, Dr. Neubergstrasse 73 W-6730 Neustadt DE
INVENTOR(S)- Rath, Hans-Peter, Dr. Friedhofstrasse 7 W-6718 Gruenstadt DE
INVENTOR(S)- Vogel, Hans-Henning, Dr. Damaschkeweg 1 W-6710 Frankenthal DE
INVENTOR(S)- Greif, Norbert, Dr. Im Woogtal 3 W-6719 Bobenheim DE
INVENTOR(S)- Oppenlaender, Knut, Dr. Otto-Dill-Strasse 23 W-6700 Ludwigshafen DE
INVENTOR(S)- Denzinger, Walter Wormser Landstrasse 65 W-6720 Speyer DE
INVENTOR(S)- Hartmann, Heinrich, Dr. Weinheimer Strasse 46 W-6703 Limburgerhof DE

PATENT ASSIGNEE(S)- BASF Aktiengesellschaft (200000) Carl-Bosch-Strasse 38 W-6700 Ludwigshafen DE **DESG.**
COUNTRIES- AT; BE; CH; DE; ES; FR; GB; IT; LI; NL; SE
PATENT NUMBER- 00307815/EP B1
PATENT APPLICATION NUMBER- 88114756
DATE FILED- 1988-09-09
PUBLICATION DATE- 1992-04-08
PATENT PRIORITY INFO- DE, 3730885, 1987-09-15; DE, 3733172, 1987-10-01
INTERNATIONAL PATENT CLASS- C10L00118; C10L00122
PUBLICATION- 1989-03-22, A1, Published application with search report; 1992-04-08, B1, Publication of granted patent
FILING LANGUAGE- German
PROCEDURE LANGUAGE- German
LANGUAGE- German NDN- 069-0303-3130-6

EXEMPLARY CLAIMS- A fuel for gasoline engines which contains from 10 to 2000 ppm by weight of a copolymer of an olefin of from 2 to 40 carbon atoms or a cycloolefin of from 3 to 10 carbon atoms with maleic anhydride or a copolymer of an alkyl vinyl ether of from 1 to 30 carbon atoms in the alkyl group

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or a cycloalkyl vinyl ether of from 3 to 10 carbon atoms in the alkyl group with maleic anhydride or a copolymer of an alkyl vinyl ether of from 1 to 30 carbon atoms in the alkyl group or a cycloalkyl vinyl ether of from 3 to 10 carbon atoms in the alkyl group and an olefin of from 2 to 40 carbon atoms or a cycloolefin of from 3 to 10 carbon atoms with maleic anhydride having a total molecular weight of from 500 to 20,000 g per mole, the carboxyl groups on the copolymer having been wholly or partly converted with an alkali metal to form an alkali metal salt and the remaining carboxyl groups having been converted with an alcohol or an amine of up to 50 carbon atoms into the corresponding ester or amide groups or ammonium salts. A fuel as claimed in claim 1, wherein the copolymer contains not less than 3% by weight of alkali metal. A fuel as claimed in claim 1 or 2, wherein the carboxyl groups on the copolymer have been reacted to form a potassium salt.


DESIGNATED COUNTRY(S)- AT; BE; CH; DE; ES; FR; GB; IT; LI; NL; SE

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Patent Abstract

EPA 89-12 0307815 **Fuels for spark ignition engines.**

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PROCEDURE LANGUAGE- German
LANGUAGE- German NDN- 050-0019-3078-3

The spark-ignition engine fuels contain small quantities of copolymers of olefins having 2 to 40 C atoms and/or cycloolefins having 3 to 10 C atoms with maleic anhydride and/or copolymers of alkyl vinyl ethers having 1 to 30 C atoms in the alkyl group and/or cycloalkyl vinyl ethers having 3 to 10 C

atoms in the alkyl group with maleic anhydride and/or copolymers of alkyl vinyl ethers having 1 to 30 C atoms in the alkyl group and/or cycloalkyl vinyl ethers having 3 to 10 C atoms in the alkyl group and olefins having 2 to 40 C atoms and/or cycloolefins having 3 to 10 C atoms with maleic anhydride, having a total molecular mass from 500 to 20,000 g per mol, the carboxyl groups of the copolymers having been wholly or partially reacted with alkali or alkaline earth to form the alkali metal salts or alkaline earth metal salts, and the remainder of the carboxyl groups having been reacted with alcohols and/or amines having up to 50 C atoms to give the corresponding ester groups and/or amide groups and/or ammonium salts.

DESIGNATED COUNTRY(S)- AT; BE; CH; DE; ES; FR; GB; IT; LI; NL; SE

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